

When seen last, in 1904, he still remained comfortable. Length of observation ten years.

Case 4, January 26, 1895. John H., 48 years old, Irish, laborer, single, of good habits. Gonorrhea in 1892. In 1893 internal urethrotomy for urethral stricture. Six months later he had cystitis, and ever since has been compelled to rise at night four or five times. The capacity of the bladder is irregular; sometimes he can hold 500 cc., sometimes only 100 cc. No noticeable hematuria.

Examination.—Respiratory murmur and percussion resonance impaired on right side. Has stomacheic and intestinal indigestion, with constipation and frequent attacks of biliousness. No rectal disease. Genital organs healthy. Bladder capacity 480 cc. The urethra will generally take a No. 20 F. steel olive-tipped bougie easily, but sometimes there are irritable spasms at the meatus and in the bulb, preventing the passage of any soft instrument.

Cystoscopic Examination.—February 1. Much floating mucus and pus shreds. The mucous membrane about the bladder neck was edematous and gathered into large folds giving the impression of a neoplasm. Upon the bladder summit was a large irregular ulcer with hemorrhagic discolorations of its edges which looked as if caused by repeated traumatism. The mucous membrane of the entire bladder was without gloss, and looked thickened. Upon inquiry I found he had had large sounds passed every second day for many months, the handle being depressed far down between the thighs, and he had also been having permanganate solutions, 1-500, and sublimate, 1-2,000, by injections through a catheter with resulting increase of discomfort.

His urine was acid, and contained  $\frac{1}{4}\%$  albumin, much pus, a few red blood cells and abundant microorganisms. I believed we were dealing with a gonorrheal cystitis, aggravated by violence, and used a salicylic wash 1-3,000 by the Janet method daily until June, with balsamics; santal harlem oil, eucalyptus and wintergreen oils, and later salol and boric acid. His urine grew clearer and the frequency less. In June I cystoscoped him a second time. The bladder wall in general more closely approached that pink-stained straw color that is natural, but was blotched by brownish discolorations marking preceding hemorrhages or healed erosions. At the extreme summit the rays were entirely absorbed. The edema had disappeared almost entirely at the base, and one could see plainly a few scattered red and white nodules shining through the mucus membrane, and a few stellate or web-like patches of blood vessels centering on hemorrhagic spots in the submucous tissues. I believed that his cystitis was gonorrheal plus the irritation of traumatism and strong chemical solutions. The treatment was continued with marked benefit until the following September, borocitrate of magnesia, and later hexamethylene-tetramine being added to the therapeutics of internal treatment.

In January, 1899, he had an acute gonorrhea, which was complicated in February by double epididymitis. He dismissed himself as cured April 20th. Discharge had ceased, the epididymitis had disappeared, his prostate and seminal vesicles felt normal, but there was a considerable pus in his urine. He refused to be cystoscoped. In July, 1899, he returned, complaining of pain and burning in the bladder and tenderness upon pressure above the pubes. Urine removed from the bladder by the catheter contained pus. I suspected urinary tuberculosis, and remembering the peculiar appearance of the bladder wall, the cystoscope was introduced again, but did not give a very satisfactory view on account of both cystospasm and urethrospasm. The urine was examined for tubercle bacilli several times with negative results. It swarmed with other microorganisms. The examination seemed to do him good for a time, for there was less pain and frequency.

In October he complained of frequent and urgent micturition during the day, but except for great polyuria was comfortable at night. I saw him once or twice a month until August, 1900, his condition remaining much the same. He received methylene blue, santal oil, saw palmetto, triticum, oil eucalyptus, methyl salicylate, guaiacol carbonate, creosote, gaduol, aspirin, hexamethylene-tetramine, borocitrate of magnesia internally, and his bladder was washed with boric acid 1-500, silver lactate 1-5,000, borolyptol 1-100, and sublimate 1-100,000, without benefit.

He was then cystoscoped for the fourth time. The whole mucous membrane seemed to be studded with miliary tubercles varying in color from light pearl to bright red. Some had undergone cheesy degeneration. I then immediately did sectio-alta. The summit was tightly adherent to the peritoneal fold. The bladder wall was generally and vigorously curetted and the outlet stretched. The few tubercle foci which had ulcerated were very irregular in form. The curettement was almost brutal in its severity. The hemorrhage was great, but was controlled by the use of a continuous stream of hot water to 130° F. He was drained suprapubically through a De Pezzer tube as described by the writer elsewhere, (Journal Cut. and G. U. Diseases, May 1900). At the end of 20 days, when the urine had become clear, the tube was removed, and the track healed in 24 hours.

After the operation the bladder was irrigated daily with sublimate 1-100,000, and he took hexamethylene-tetramine grammes 1.5 and methylene blue .045 daily. For the following two months he received instillations of sublimate 1-8,000 every third day, and had daily inunctions of a

mixture of guaiacol in olive oil 1.4 over the bladder each day.

In November, 1900, he went back to work as a switchman for the Southern Pacific Railroad. There was still microscopically a very little pus in the urine. I saw him last in November, 1903. He had had no further treatment, had no pain, no annoyance at night, no frequency during the day and clear urine. He recently had undergone a gastro-enterostomy for pyloric stenosis, the cause of his dyspeptic symptoms.

Many examinations were made for tubercle bacilli in this man's urine between January, 1896, and November, 1900, but none were ever found. Yet this was a distinctive case of primary vesical miliary tuberculosis. He had no temperature before his operation, no hectic, and no night sweats. After operation his temperature rose once to 101°, and during the last week he was in bed he had some night sweats, but these disappeared after he was out and about.

Case 5, July 11, 1900. S. S. L., aged 27, single. Previous history: When twelve he commenced to urinate frequently but without pain, for which his meatus was cut without benefit. From the age of eighteen he has had frequent and painful urination. He has been treated with sounds and dilators, and his bladder injected by many physicians. He had the rest cure and instillations of nitrate of silver; the former did not benefit him, and the latter made him distinctly worse. There is always pus in his urine, and at times blood. No tubercle bacilli have ever been found. Bladder capacity 120 cc. Pain begins just before urination, and is excruciating. He urinates every hour during the day and 15 to 20 times at night. He is a tall, well-built man, who is strong, but who looks tired.

General examination negative. Urethra hyperesthetic. Prostate normal. Seminal vesicles not enlarged or nodular, but pressure upon either of them causes the same kind of pain that he experiences when urinating. Urine acid, purulent, bacterial, contains traces of albumin, but no tubercle bacilli.

Cystoscopic Examination.—Bladder walls thick and congested. On the summit are some brown pigment spots; on the lateral segments and around the ureters there is a purplish, gelatinous, edematous, puffy appearance. On the right lower quadrant there is a superficial ulcer about  $1\frac{1}{2}$  cm. in diameter, with yellow base and scalloped edges. The whole picture was one of a certain form of tuberculosis of the bladder. There was no ill effect from the examination.

Treatment.—Instillations of sublimate 1-20,000 gradually increased to 1-12,000. At the latter strength it produced so much irritation that the patient was confined to his bed for several days. Injections of eka iodoform in oil of sesame and in liquid vaseline was essayed, but also caused much pain, and was abandoned. In January, 1901, he was confined to his room, and often had to pass water 30 times at night. We then began instillations of bichlorid 1-50,000 daily. He grew gradually better, and the strength was increased to 1-23,000. He persisted in playing golf without proper protection, and had another relapse. I advised a supra-pubic cystotomy, which we did March 23, 1901.

There was a chronic cystitis. A few tubercles were visible in the edematous mucus membrane, and many enlarged glands produced a granular appearance in some places. I vigorously curetted the ulcer and all of the bladder wall that I could reach with my large sharp curettes. I then dilated the urethra to 45 F. with Kollman's dilator, and curetted it with a small sharp uterine curette. The bleeding was stilled with hot water. There was a peculiar small fibroid band in the anterior part of the trigone, which I severed. Drainage by the De Pezzer tube supra-pubically, and a retention catheter in the urethra. The latter was irrigated every hour to insure free drainage. He remained in the hospital until May 4th. He developed phlebitis of the left leg in the middle of April. This disappeared in about three weeks. The drainage was removed April 27th. When he left the hospital he was urinating comfortably five or six times during the day and twice at night. He was given hexamethylene-tetramine and general tonics during the summer, and lived at the seaside.

He now rises only once at night, and has to pass water only every four or five hours during the day. His bladder will hold 250 cc., and he can go to the theater or to any evening entertainment without fear and with comfort, a thing he had not been able to do since childhood. He occupies a position of trust, and is able to work. I saw him February 1st, 1904. He is still well. Under observation nearly four years.

(To be continued.)

#### Prosecutions in San Francisco.

The first three cases to be heard under the present arrangement whereby illegal practitioners are prosecuted by the County Medical Society, resulted in prompt convictions, with a fine of \$100 in each case. The convicted were Waller, Richman and Parlow. This certainly is very encouraging and promises well for the future work of the committee.